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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/603,405 | 06/24/2003 | Christ Pher Oriakhi | 200300746-I | 4185 |
| 22879 | 7590 | 12/20/2004 | EXAMINER | |
| HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400 | | | MARCANTONI, PAUL D | |
| | | ART UNIT | PAPER NUMBER | |
| | | 1755 | | |

DATE MAILED: 12/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/603,405 | ORIAKHI ET AL. | |
| | Examiner | Art Unit | |
| | Paul Marcantoni | 1755 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 9/20/04 response to restriction reqm't.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 12-41 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-11 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All
 - b) Some
 - c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____. |

Applicant's election of Group I, claims 1-11, in the reply filed on 9/20/04 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-11 are rejected under 35 U.S.C. 102(a and b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Bredt et al. (Pub. No. US 2001/0050031 A1), Cima et al. '380, Sachs et al. '055, Pryor '851, Ingrassia '730, or Ishikawa et al. (JP 04363808 abstract) alone or in view of Jang et al. or Popoola et al. (abstract only-Jrnl Materials Rsch 1992).

Bredt et al. teach a method of making a 3-dimensional object by mixing calcium aluminate (p.2, col.2, second to last paragraph), and a printing aid such as polyethylene glycol thus anticipating the instant invention. Even if not anticipated, overlapping

ranges of amounts would have been *prima facie* obvious to one of ordinary skill in the art.

Cima et al. '380 and Sachs et al. '055 teach a process for making a 3-dimensional object by mixing a ceramic material or inorganic binder with a binder particulate such as polyvinyl alcohol thus anticipating the instant invention. Further, even if not anticipated, calcium aluminate is a ceramic material or inorganic powder known to one of ordinary skill in the art. Popoola et al. even teach that calcium aluminate is representative of a ceramic material (see abstract). It is the examiner's position that it would have been an obvious design choice to use calcium aluminate as the ceramic/inorganic powder because it is a ceramic or inorganic powder that would have been an obvious design choice and available to applicants at the time of their invention.

Pryor '851 teaches a method of making a 3-dimensional object by mixing calcium aluminate (see claim 24 in col.14) and polymer thus anticipating the instant invention. Even if not anticipated, the use of a liquid printing aid such as a glycol would appear to be routinely done in the art and thus the usage in Pryor would have been an obvious design choice for one of ordinary skill in the art.

Ingrassia '730 teaches making a structure that has superposed layers of cement and teaches aluminous cement (e.g. calcium aluminate cement) is used and would appear to anticipate the instant invention. Even if not anticipated, the use of a polymeric binding aid for assistance in mixing or the use of polymers as surfactants and other conventional additives to cement is old in the art.

Ishikawa et al. (JP '808) teach a method of making a semiconductor composition that is applied in layers (thus multi-layers) comprising calcium aluminate and polymer thus anticipating the instant invention. Even if not anticipated, overlapping ranges of amounts would have been *prima facie* obvious to one of ordinary skill in the art.

Jang et al. '406 has been cited as a secondary reference in combination with the primary references because it is old in the art to add a pigment, dye or other type of colorant to a 3-D object or cement composition mainly for decorative or aesthetic purposes. It is old in the art to add a pigment to both.

Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention.

The term "predetermined" is indefinite in claims 1 (listed twice) and claim 2. Deletion of this term is advised.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Marcantoni whose telephone number is 571-272-1373. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell, can be reached at 571-272-1362. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Application/Control Number: 10/603,405
Art Unit: 1755

Page 5

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Paul Marcantoni
Primary Examiner
Art Unit 1755